This claim is not anticipated by McGrath et al. because Mcgrath does not disclose that the formulation has "a water activity of between 0.01-0.07, and wherein, upon exposure to an acidic environment, an alginic acid gel is formed which shields the probiotic bacteria from the antibiotic effects of the acidic environment." In McGrath et al the probiotic bacteria in the feed is not intended to be acid-resistant (acid resistance is not mentioned). McGrath et al. note that the mixture includes alginate, and "Preferably, the alginate is an alkaline earth metal alginate, and most preferably the alginate is a calcium or barium alginate." (para. 23). As described in para. 47, sodium alginate can be used in formulating the McGrath et al. mixture, but, thereafter:

> The suspension [including bacterial cells and sodium alginate] is then added to a solution containing calcium ions to cause a gel to form. Alternatively, the cells may be suspended in the calcium-containing solution and added to a soluble alginate solution. The gel comprises calcium alginate, and contains immobilised probiotic cells suspended in the alginate.

However, when sodium alginate is mixed with a "calcium-containing solution," a gel-like insoluble material forms – but an alginic acid gel does not form on contact with an acidic environment. As noted in the present application, page 7, first full paragraph, calcium in the formulation is undesirable (it will actually prevent formation of the alginic acid gel) and moreover:

> Calcium compounds such as calcium carbonate are not used as carriers since an excess of calcium forms an insoluble gel with sodium alginate that does not dissolve in the intestinal tract.

McGrath et al.'s purpose is to provide a matrix that allows the bacteria to slowly release or slough off after ingestion or in a feed stream prior to ingestion. There is no mention or suggestion anywhere of conferring resistance to the bacteria to stomach acid.

In conclusion, there is no anticipation of the claims, the application is allowable, and such action is sought. It is further noted that amended claim 2 is supported in several places, including in the abstract.

PAGE 2/6 * RCVD AT 3/3/2005 2:04:00 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/3 * DNIS:8729306 * CSID:9082260800 * DURATION (mm-ss):02-14

Respectfully submitted,

Dated:_____ By: _____

Eric P. Mirabel
Registration No. 31,211

Correspondence Address::
Bioarray Solutions
35 Technology Drive
Warren New Jersey 07059
Telephone 908 226 8200 Ext 203
Facsimile: 908 226 0800

Applicant hereby petitions for any petition required to make this submission timely and in compliance with applicable rules. The Commissioner is hereby authorized to charge any fees due in connection with this submission and not otherwise covered by payment included herewith, or to credit any overpayment, to Deposit Account No. 502088.

PAGE 3/8 * RCVD AT 3/3/2005 2:04:00 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-1/3 * DNIS:8729306 * CSID:9082260800 * DURATION (mm-ss):02-14